

IN THE DRAWINGS

Applicants have amended FIG. 1 to include the PRIOR ART notation. A copy of a proposed correction of FIG. 1 with the amendment included in red ink is attached hereto as Exhibit A.

IN THE CLAIMS

Please amend claim 12 as follows:

12. (Amended) A specimen inspection system, comprising:
a light energy source;
a multiple element arrangement for receiving energy from said energy source and selectively passing the light energy received;
a lensing arrangement for measuring and canceling topographical variations during inspection;
a pinhole mask for filtering light energy received from said lensing arrangement; and
a time delay and integration charge coupled device for receiving light energy from the pinhole mask.

Please amend claim 18 as follows:

18. (Amended) The specimen inspection system of claim 12, wherein said multiple element arrangement comprises a plurality of offset individual lenses.

Please amend claim 30 as follows:

30. (Amended) The system of claim 29, wherein said fly lens arrangement is substantially aligned with respect to the pinhole mask.

Please amend claim 32 as follows:

32. (Amended) A method for inspecting a specimen, comprising [the steps of]:
generating light energy;
selectively filtering and passing energy received from said [illumination means]
light energy generating using a multiple element arrangement;
imparting light energy from the multiple element arrangement onto said specimen;

further selectively filtering and passing energy reflected from said specimen; and performing a time delay and integration sensing function on light energy received from said further selectively filtering and passing [step].

Please amend claim 33 as follows:

33. (Amended) The method of claim 32, further comprising [the step of] automatically focusing the light energy [in the] during selective[ly] filtering [step] and energy passing wherein said automatic focusing comprises measuring and canceling topographical variations during selective filtering.

Please add the following claims 34-50:

34. A method for focusing an inspection system used to inspect a specimen, comprising:

performing an initial scan to determine specimen depth features;

determining a bottom depth on the specimen and setting a bottom inspection threshold at the bottom depth; and

performing a feature scan of the specimen using the bottom inspection threshold and modulating focus depth based on the initial scan.

35. The method of claim 34, wherein performing the initial scan comprises performing multiple inspection swaths across the specimen.

36. The method of claim 35, wherein the specimen comprises a semiconductor wafer.

37. The method of claim 36, wherein the semiconductor wafer comprises:

at least one metal layer; and

silicon underlying the at least one metal layer.

38. The method of claim 34, wherein said method maintains a relatively planar focus condition.

39. The method of claim 34, further comprising scanning additional specimens and equalizing the resultant scans.

40. The method of claim 39, wherein equalizing the resultant scans comprises averaging specimen values thereby removing noise and tilt.

41. A method for focusing an inspection system employed to inspect a semiconductor wafer, comprising:

performing an initial scan to determine semiconductor wafer depth features;
determining a bottom depth for the semiconductor wafer;
setting a bottom inspection threshold at the bottom depth; and
scanning the semiconductor wafer using the bottom inspection threshold as a baseline and modulating focus depth during the scanning based on the initial scan.

42. The method of claim 41, wherein performing the initial scan comprises performing multiple inspection swaths across the semiconductor wafer.

43. The method of claim 42, wherein the semiconductor wafer comprises:
At least one metal layer; and
Silicon underlying the at least one metal layer.

44. The method of claim 41, wherein said method maintains a relatively planar focus condition.

45. The method of claim 41, further comprising scanning additional similar semiconductor wafers and equalizing the resultant scans.

46. The method of claim 45, wherein equalizing the resultant scans comprises averaging specimen values thereby removing noise and tilt.

47. A system for inspecting a specimen, comprising:
an offset calculator for calculating a baseline focal offset for the specimen;
a focal actuator for dynamically setting system focus partially based on the baseline focal offset; and

a summing element for summing dynamically set feedback system focus and baseline focal offset to produce a focal error.

48. The system of claim 46, wherein the summing element provides the focal error to the offset calculator.

49. The system of claim 47, wherein said focal actuator provides signals through a focus feedback system to a recording device.

50. The system of claim 46, further comprising an amplifier and compensator that receive the focal error, amplify and compensate the focal error, and provide the amplified and compensated focal error to the offset calculator.